REMARKS

Claims 1-70 are pending in the application.

Claims 1-70 have been rejected.

Claims 57 and 64 have been amended. Support for these amendments can be found, at least, in paragraphs 49 and 69 of the specification. No new matter has been added.

Rejection of Claims under 35 U.S.C. §101

Claims 57-70 stand rejected under 35 U.S.C. §101. These claims have been amended to recite a computer readable medium that stores a program, as suggested by the Office Action on p. 2. Accordingly, this rejection is now believed to be moot.

Rejection of Claims under 35 U.S.C. §102

Claims 1-5, 34, 36, 43-47 and 57-61 stand rejected under 35 U.S.C. §102(b) as being anticipated by Gleeson et al. (USPN 5,959,989) ("Gleeson"). Applicants respectfully traverse this rejection.

The cited portions of Gleeson neither teach nor suggest a virtual network device link like the one recited in amended claim 1. Instead, at best, Gleeson shows a trunk coupling two independent devices in FIG. 5. For at least this reason, Gleeson fails to teach or suggest claim 1, which recites:

receiving a packet, the packet comprising a multicast destination address; and

sending a copy of the packet to a virtual network device sub-unit via a virtual
network device link, wherein the virtual network device link couples two
virtual network device sub-units, and wherein the two virtual network
device sub-units are configured to operate as a single virtual network
device.

For at least this reason, dependent claims 2-4 are also patentable over the cited art. Claims 34, 36, 43-47, and 57-61 are patentable over the cited art for similar reasons.

Claims 13-17, 50-54 and 64-68 stand rejected under 35 U.S.C. §102(e) as being anticipated by Kalkunte et al. (USPPN 2003/0198231) ("Kalkunte"). Applicants respectfully traverse this rejection.

Like the cited portions of Gleeson, the cited portions of Kalkunte neither teach nor suggest a virtual network device link. Instead, Kalkunte shows a switch fabric that

interconnects several switches in FIG. 1. For at least this reason, Kalkunte clearly fails to teach or suggest amended claim 13, which recites:

> receiving a packet via a virtual network device link, the packet comprising a
>> unicast destination address, wherein the virtual network device link
>> couples two virtual network device sub-units, and wherein the two virtual
>> network device sub-units are configured to operate as a single virtual
>> network device; and
> performing an egress lookup for the packet in response to the receiving the
>> packet.

Dependent claims 14-17 are also patentable over the cited art for at least the foregoing reasons. Claims 50-54 and 64-68 are patentable over the cited art for similar reasons.

Rejection of Claims under 35 U.S.C. §103(a)

Claims 6-7, 48, and 62 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gleeson in view of Ellis et al. (USPPN 2002/0126671) ("Ellis"). Claims 8-12, 40-42, 49 and 63 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gleeson in view of Kalkunte. Applicants respectfully traverse these rejections for at least the foregoing reasons set forth above with respect to the independent claims from which these dependent claims depend.

Claims 35, 37, and 39 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Gleeson in view of Kalkunte and further in view of Gallo et al. (USPN 6,760,776) ("Gallo"). Claim 38 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Gleeson in view of Kalkunte, further in view of Gallo and further in view of Ellis. Applicants respectfully traverse these rejections for at least the foregoing reasons set forth above with respect to independent claim 34.

Claims 18, 55, and 69 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kalkunte in view of Ellis. Claims 19-22, 56, and 70 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kalkunte in view of Gleeson. Claim 23 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kalkunte in view of Gleeson and further in view of Ellis. Applicants respectfully traverse these rejections for at least the foregoing reasons set forth above with respect to independent claim 13.

Claims 24 and 30-32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kalkunte in view of Gallo. Applicants respectfully traverse this rejection.

With respect to amended claim 24, the cited art neither teaches nor suggests:

receiving a packet via a virtual network device link;

performing one of an ingress lookup and an egress lookup for the packet, wherein

the ingress lookup is performed for the packet if the packet includes a multicast destination address;

the egress lookup is performed for the packet if the packet includes a unicast destination address; and

a primary lookup table entry can be allocated in response to an ingress lookup but not in response to an egress lookup.

The rejection relies upon paragraph 37 of Kalkunte to teach "the egress lookup is performed for the packet if the packet includes a unicast destination address." Office Action, p. 32. Paragraph 37 of Kalkunte recites:

When a frame is received by the fabric ingress, the Opcode value of 1 in the header indicates that the packet is a unicast packet and the egress port and destination module id (DST_MODID) information in the Module Header is valid. The fabric will forward the packet to the egress port in the fabric, which is the path to the destination module. Alternatively, in some configurations there may be more than one path to the destination module in the fabric. Therefore the fabric may have to choose an egress port based on the fabric ingress port and the destination module id. In configurations wherein the destination modules are directly connected to the fabric, the selection of the fabric egress port is based on destination module and is independent of the fabric ingress port.

Nothing in the cited section of Kalkunte indicates that the fabric is performing an egress lookup (as opposed to an ingress lookup) for the unicast packet. Instead, Kalkunte simply says that the fabric selects a fabric egress port (e.g., based on DST_MODID). Selecting an egress port is not the same as performing an egress lookup. Thus, the cited portion of Kalkunte does not teach or suggest performing an egress lookup like the one recited in claim 1.

The rejection further relies upon Gallo to teach the act of performing an ingress lookup for a packet if the packet includes a multicast destination address. The stated reason for combining Gallo with Kalkunte is "to support multicast transmission of packet

along with unicast transmission in the network." Office Action, p. 33. However, Gallo's functionality is clearly unnecessary in Kalkunte's system, since Kalkunte already describes techniques for handling multicast packets in, for example, paragraph 44. Accordingly, the stated reason for combining the references is not consistent with the actual disclosure of the references. Furthermore, it is unclear that Gallo's techniques could even be used in the system described in Kalkunte.

Furthermore, neither Kalkunte nor Gallo, considered alone or in combination, teach or suggest performing different (e.g., egress or ingress) lookups for packets, dependent upon whether the packet includes a unicast or multicast destination address. Gallo explicitly says that "if the L2 frame has a registered L2 address or has a multicast characteristic having an L3 registration," "the frame is passed to a layer 3 ingress processor." Gallo, col. 3, lines 56-59. Thus, Gallo appears to teach using the same technique to handle both unicast and multicast traffic.

Similarly, paragraphs 37 and 44 of Kalkunte describe similar techniques for handling unicast and multicast packets. Both techniques involve using routing tables (Table 1 and Table 3 on page 3 of Kalkunte), and neither technique appears to rely upon a different type (ingress or egress) of lookup dependent upon whether a packet has a unicast or multicast destination address.

Accordingly, the cited art clearly fails to teach or suggest the features of claim 24. Dependent claims 30-32 are patentable over the cited art for similar reasons.
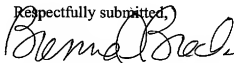
Claims 25, 26, and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kalkunte in view of Gallo and further in view of Gleeson. Claims 27 and 29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kalkunte in view of Gallo, further in view of Gleeson and further in view of Ellis. Claim 33 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kalkunte in view of Gallo, and further in view of Ellis. Applicants respectfully traverse these rejections for at least the foregoing reasons set forth above with respect to independent claim 24.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephone interview, the Examiner is invited to telephone the undersigned at 512-439-5087.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

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